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ABSTRACT

The National Longitudinal Study (NLS) of the High School Class of 1972 is a large scale study providing information on high school students as they mature to adulthood. The NLS refers to high school seniors, excluding those who drop out. The study is potentially biased toward more educated students. The analysis was based on 1972 Current Population Survey (CPS), a probability sample which enables researchers to distinguish and compare high school seniors and dropouts. The transition into new family roles occurs earlier for dropouts. Fully 20 percent of 17- and 18-year-old dropouts are married and many are parents. This compares to two percent of their high school peers. Dropouts are more likely to have left their parental home, many forming a separate primary family. Use of NLS for life cycle analyses must be tempered by awareness of these differences. (DWH)

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HIGH SCHOOL SENIORS AND HIGH SCHOOL DROPOUTS: AN EVALUATION OF LIFE CYCLE BIAS IN THE NATIONAL LONGITUDINAL STUDY OF THE HIGH SCHOOL CLASS OF 1972

Frances Kobrin

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PREFACE

The National Longitudinal Study (NLS) of the High School Class of 1972 is a large-scale longitudinal survey designed to provide information on high school students as they move into early adulthood. The NLS was originally motivated by a need for data with which to analyze critical issues in educational policy, but it has taken on much broader significance as a data base that can support analysis on a variety of demographic topics. The Rand Corporation's Population Research Center is using the NLS in several studies of the demography of families and households, with support from Grant No. P-50-HD12639 from the National Institute of Child Health and Human Development, U.S. Department of Health and Human Services.

By definition, the NLS refers only to high school seniors, excluding their peers who failed to advance that far. The high school dropouts who are excluded surely differ from the seniors on many dimensions of concern, and their exclusion biases one's view of demographic processes in late adolescence and early adulthood. It is important to know the extent of that bias.

This Note provides an evaluation of certain life-cycle dimensions of these differences, and the potential biases they imply, using the March 1972 Current Population Survey. Beyond their immediate applicability to the Rand program of research, these results should be of interest to others using the NLS in studies where this "high-school-dropout" bias poses important concerns.

SUMMARY

The National Longitudinal Study (NLS) of the High School Class of 1972 is a large-scale longitudinal data base that provides information on high school students as they move into early adulthood. However, because the NLS refers only to high school seniors (excluding their peers who drop out), the view it furnishes of processes affecting teens as they assumed adult roles in the 1970s is potentially biased toward more educated, and hence more successful, members of the cohort.

This Note evaluates certain life-cycle dimensions of this potential bias. The analysis is based on the March 1972 Current Population Survey (CPS), a probability sample of the U.S. population that enables one to distinguish and compare high school seniors and high school dropouts.

Certain differences between the two groups are noteworthy: (1) Fully 20 percent of 17- and 18-year-old dropouts are married by that age, compared with barely two percent of their high-school-senior peers; many of the former also have become parents; (2) high school dropouts are also more likely to have left their parental home, mostly forming a separate primary family. These and other differences highlight the earlier timing, for dropouts, of the transition into new family roles.

Use of the NLS for life-cycle analyses has to be conditioned by an awareness of these differences. It is reassuring to note, however, that the senior year in high school evidently is not too late to begin observation of the major life-cycle events of early adulthood for those who attain that level. Staying in school to finish high school is associated with deferring the assumption of other family-related adult roles.

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I. BACKGROUND AND OBJECTIVES

In 1972 a large panel study of American youth was initiated by the National Center for Education Statistics. The National Longitudinal Study of the High School Class of 1972 (hereafter, NLS) has tracked over 22,000 adolescents who are now in their mid-twenties. U.S. high schools provided the frame, and the probability sampling procedure resulted in a deeply stratified design for representing the Class of 1972. Five stratifying criteria were used to achieve proportionality--public vs. private school, region, high school size, community size, and proximity to institutions of higher education. Schools classified as poor or containing a disproportionately high number of ethnic minority students were sampled at twice the expected population proportion. The panel has been resurveyed repeatedly, with waves conducted in 1973, 1974, 1976, and 1979.

Although the data pose many difficulties, on balance they represent an extremely valuable data set for research. Case retention rates have been high, and the preparation of the data for public use by the organization conducting the survey is of high quality. Further, the data set is large, longitudinal, and focused in age. This means that maximum resolution is achieved on a period of the life cycle when the need for longitudinal data is great, given the density of transitions that occur. In addition, the large size of the sample allows for detailed study of subgroup differences.

One of the difficulties with these data is that the design is limited essentially to those who attained at least 12 years of

education, since only those in school in the spring of the senior year were sampled. This design resulted from the original decisions of four advisory committees commissioned to consider the data needs of several U.S. Office of Education agencies.[1] As a consequence, the study provides a biased view of processes affecting American teenagers as they assumed adult roles in the 1970s: The view is skewed toward the more educated and, thus, toward those more likely to be successful. Although the survey design tried to remedy this difficulty by oversampling the economically and ethnically disadvantaged, the problem remains that the general-purpose user of these data cannot learn anything about high school dropouts, i.e., those of the same approximate cohort who did not remain in school long enough to reach the high school senior year. It is likely that high school dropouts differ from graduates on many dimensions of concern to users of the NLS, and an evaluation of these differences would help to ensure the best use of the data. This Note provides such an evaluation.

The March 1972 Current Population Survey (CPS) offers an opportunity to examine some dimensions of this omission. As a probability sample of the U.S. population on which a wide variety of social and economic data are collected, the CPS provides the information which allows the separation of high school seniors from high school dropouts. The wide range of characteristics available in the survey can then be used to compare the two groups. This Note will focus primarily

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[1]Jay R. Levinsohn et al., National Longitudinal Study: Base Year, First, Second, and Third Follow-up Data File Users Manual, 2 vols., Research Triangle Institute, Chapel Hill, North Carolina, 1978.

on life-cycle dimensions, but the CPS is rich in work- and income-related information as well.[2]

[2]Several comparisons of the NLS and the CPS for employment and unemployment levels have appeared. See the discussion in Norman Bowers, "Youth Labor Force Activity: Alternative Surveys Compared," Monthly Labor Review, March 1981, pp. 3-17.

II. FINDINGS

High school seniors in the CPS were identified using three variables: highest grade attained (P57); whether that grade was completed (P59); and principal activity in the pre-survey week (P151).[1] These variables in combination yield persons whose principal activity was student and who have reached but not completed 12th grade--i.e., continuing high school seniors. In the March 1972 CPS, 1826 cases could be classified in this fashion as high school seniors. Table 1 compares their demographic characteristics with those of the students in the NLS sample.

Overall, agreement is very high. The sex balance for both the NLS and the CPS high school seniors is very even, each with a very slight surplus of girls. Direct age data were given in the CPS, while the NLS gave dates of birth. These were converted to ages as of April 1, 1972, assuming an equal distribution of birthdays over the years in question. The resulting age distributions are very similar. As would be expected of a high school class in the spring of the senior year, the modal age is 17 with many already 18. Those older or younger than 17 or 18 account for little more than 10 percent of the class--a small fraction of 16-year-olds and a larger older group made up of those who have been left back one or more times. The racial composition, on the other hand, reflects the oversampling of minorities by the NLS, resulting in high proportions of black, Spanish origin, and "other" students.

[1]Since many high school seniors work, P152, Employment Status (Recode), will not classify them as students because labor force status takes priority over noneconomic activities.

Table 1

COMPARISON OF CPS AND NLS HIGH SCHOOL SENIORS

Characteristic	CPS	NLS
Total	1826	22523*
Age**		
16	2.7	2.1
17	55.7	55.9
18	35.1	33.5
19	5.0	7.5
20+	1.5	1.4
Total	100.0	100.0
Sex		
Males	49.1	49.6
Females	50.9	50.4
Ethnicity		
White, non-Spanish	83.2	76.7
Black	11.8	13.9
Spanish-origin	3.7	4.4
Other	1.3	4.9
Total	100.0	99.9

SOURCE: Current Population Survey, March 1972 and the National Longitudinal Study of High School Seniors.

*Unweighted number for whom composite birth year was available from the first three surveys.

**The NLS data refer to age in April 1972, assuming equal distribution of birthdays throughout the year.

Similar considerations governed the choice of a definition of high school dropouts. Persons who did not complete high school and are not presently in school are high school dropouts. However, it was necessary

to impose an age limitation in some sensible fashion. Although the high school class includes many persons over 18, most 19-year-old and older high school dropouts are dropouts of earlier cohorts of high school students. In addition, many 15- and 16-year-olds can be found in the CPS who are no longer in school and who had not yet finished high school, but most are likely to be early dropouts of later high school classes. Therefore, the dropout population was limited to 17- and 18-year-olds, and the tables which follow compare the 1165 people in this group with the high school seniors, both in the CPS. The relative numbers should not be used to infer class dropout rates, since the dropouts have come from two cohorts, nor age dropout rates, since many 17- and 18-year-olds are still in school in earlier or later grades.

Table 2 presents sex and race distributions for the two groups. The differences are modest. Males, blacks, and particularly Spanish-origin students are more likely to have dropped out of school, so that the senior class includes more females, whites, and members of other races, but the differences are relatively small for all but the Spanish-origin population.

There is more dissimilarity on other dimensions. Dropping out of high school represents a shedding of a dependent, preparatory role. The data indicate that leaving the student role is associated with making other life-cycle transitions as well. Table 3 compares the high school seniors with high school dropouts on four life-cycle dimensions of importance for this age group. The data can indicate roughly whether people have been married, have probably become parents, have left their parental household, and are working.

Table 2

DEMOGRAPHIC CHARACTERISTICS OF HIGH SCHOOL SENIORS AND HIGH SCHOOL DROPOUTS, 1972

Characteristic	High school seniors	High school dropouts
Total (n)	1826	1165
Sex		
Male	48.6	52.0
Female	51.4	48.0
Ethnicity		
White, non-Spanish	83.2	77.4
Black	11.8	14.3
Spanish-origin	3.7	7.2
Other	1.3	1.0
Total	100.0	99.9

SOURCE: Current Population Survey, March 1972.

Table 3

WORK AND FAMILY CHARACTERISTICS OF HIGH SCHOOL SENIORS AND HIGH SCHOOL DROPOUTS, 1972

Characteristic	High school seniors	High school dropouts
Total (n)	1826	1165
Work pattern in 1971		
Did not work at all	40.0	30.1
Never worked full-time	46.5	41.2
Worked full-time for some part of the year	13.6	28.7
Total	100.1	100.0
Marital and parental history		
Never married, nonparent	98.2	79.7
Never married, parent*	0.0	0.3
Ever married, nonparent	1.2	8.5
Ever married, parent*	.6	11.5
Total	100.0	100.0
Living arrangements		
Child of head	93.2	74.6
Other relative of head	4.3	7.4
Nonrelative of head	1.1	2.0
Primary individual	0.2	1.1
Head or spouse of primary family	1.2	14.9
Total	100.0	100.0

SOURCE: Current Population Survey, March 1972.
*Head or spouse of a family with own children present.

The smallest differences between the two groups appear for work. The high school seniors show an already quite high level of work attachment, while many of the dropouts have evidently had difficulty establishing a full-time work pattern and many, as we will see, are

parents of young children. Nevertheless, substantial differences appear. Dropouts are more than twice as likely to have been working full time during some part of the year (29 percent vs. 14 percent) and less likely to have never worked in 1971 (30 percent vs. 40 percent), or to have worked only part time (41 percent vs. 46 percent).

Clearer and stronger differences appear between the two groups in the proportions who have begun to make the various transitions out of old family roles and into new ones. Whereas less than two percent of high school seniors have married by the spring of their senior year, fully 20 percent of 17- and 18-year-old high school dropouts are reported to have been married by then.

Parenthood is more difficult to assess with these data, since only those living with children of their own can be classified as parents. As a result, the numbers counted are surely an underestimate, particularly for males. It seems reasonable to assume, however, that such an underestimate would apply fairly equally to both groups. Under this definition, the differences (as for marriage) are sizable. Less than one percent of high school seniors were living with children of their own, whereas nearly 12 percent of high school dropouts were already parents.

Finally, linked at least in part to their more rapid transition into new family roles, high school dropouts are also more likely to have left home. Among high school seniors, 93 percent can be found living as a child of the head, and 4 percent are living with other relatives. Only 3 percent are on their own, living alone or with nonrelatives, or as family heads. In fact, as Table 4 shows, even high school seniors

who have assumed major work responsibilities still live at home. Among the 17- and 18-year-old dropouts, on the other hand, less than three-quarters remain at home. A larger fraction live with relatives (7 vs. 4 percent), and more than 18 percent are living on their own, either with a spouse (15 percent) or alone or with nonrelatives (3 percent).

Table 4

LIVING ARRANGEMENTS OF HIGH SCHOOL SENIORS BY WEEKS WORKED IN PREVIOUS YEAR (NEVER MARRIED, NON-FAMILY HEADS), 1972

Relationship to head	Total	Weeks worked in previous year				
		0	1-13	14-26	27-39	40+
Total (n)	1826	731	442	219	104	330
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0
Child of head	94.7	93.3	95.0	94.4	94.0	98.1
Other relative of head	3.9	5.6	3.4	2.8	5.0	1.2
Primary individual	0.2	0.0	0.7	0.0	0.0	0.3
Secondary individual	1.1	1.1	0.9	2.8	1.0	0.3

SOURCE: Current Population Survey, March 1972.

III. CONCLUSIONS

Clearly, use of the NLS for life-cycle analyses has to be conditioned by an awareness of the differences noted above. It is reassuring to note, however, that the senior year in high school evidently is not too late to begin observing the major life-cycle events of early adulthood among those who have attained that level of education. Most are living at home (data not presented) except for those very few who have married or become parents. Even those who have assumed major employment responsibilities are living with their parents. Staying in school to finish high school appears to defer the assumption of other family-related adult roles. For the dropouts in the same cohort, however, school has ended and adult tasks have begun.